

REMARKS

Claims 1-15 are pending. Reconsideration and allowance of claims 1-15 are respectfully requested.

In the Office Action dated December 30, 2005, claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Orihira et al. (U.S. Patent No. 5,685,363) in view of Costello et al. (U.S. Patent No. 6,605,955). Applicants respectfully traverse this rejection.

Claim 15 recites a chuck for use in a lithographic device. The chuck includes a first side having a support surface constructed to support an object, a second side having a low emissivity coating to thermally isolate the chuck, an enclosed chamber positioned within the chuck, and a phase transiting material positioned within the enclosed chamber. The improper combination of Orihira et al. and Costello et al. does not disclose or suggest all of the features of claim 15.

Orihira et al. discloses a substrate holding device that includes a base (4) that supports a substrate (2). (Orihira et al. at col. 3, lns. 6-8.) The base (4) contains a heat absorbing fluid passage (6) into which a heat absorbing fluid (8) flows in order to cool the base (4). (See Orihira et al. at col. 1, lns. 42-44 and the Figures.) Because the base (4) of Orihira et al. includes its own cooling system, there is no motivation to combine Orihira et al. with Costello et al.

Costello et al. discloses a temperature-controlled chuck assembly (30) that includes a ceramic insulation layer (38) to thermally and electrically isolate the chuck. (See Costello et al. at col. 8, lns. 19-21 and FIG. 3.) There is no indication that the ceramic insulation layer has a low emissivity. In fact, ceramics are known to have rather high emissivity values. Moreover, Applicants respectfully submit that the insulation layer (38) disclosed by Costello et al. is not a coating. Costello et al. makes it clear that the ceramic insulation layer is formed so that it can sustain "relatively high compressive force loads," which indicates that a layer having a thickness that is greater than a mere coating should be used. In addition, Costello et al. relies on the low thermal conductivity value of the ceramic for its thermal insulation properties. (Costello et al. at col. 8, lns. 47-54.) There is absolutely no indication the ceramic insulation layer (38) of Costello et al. has a low emissivity.

Accordingly, Applicants respectfully submit a *prima facie* case of obviousness has not been established by the Examiner and that claim 15 is patentable over Orihira et al. in view of Costello et al.. Applicants respectfully request that the rejection to claim 15 be withdrawn.

Applicants acknowledge with appreciation that claims 1-14 are allowable. However, in view of this Amendment and remarks presented above, Applicants respectfully submit that all of the pending claims are allowable.

All rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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